

# A

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## Interactions Among Living Things

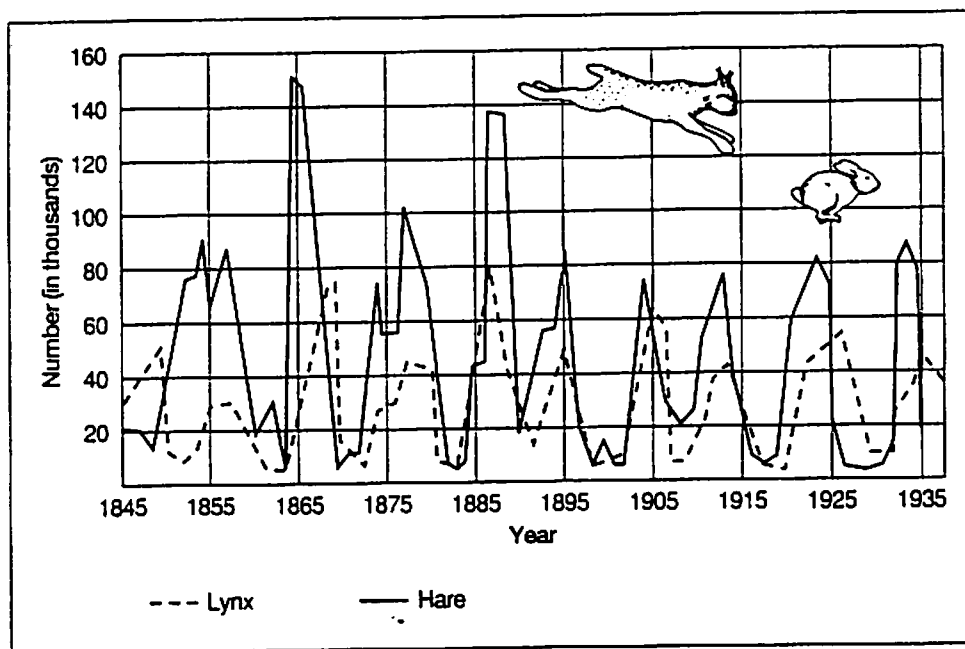
### CHAPTER

# 1

## What Goes Up Must Come Down

Predators and their prey do not simply interact with one another on an individual basis. They also affect one another on the level of populations. In fact, the size of a prey population may have a strong effect on the size of a predator population, and vice versa.

The accompanying graph shows how the size of the lynx and snowshoe hare populations in Canada changed over time. The data are based on the number of animal skins bought from trappers. Examine the graph, then answer the questions.



1. What happens to the lynx population when the snowshoe hare population goes up?

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2. How would you expect an increasing lynx population to affect the snowshoe hare population? Explain.

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3. What happens to the lynx population when the snowshoe hare population goes down? Why do you think this happens? \_\_\_\_\_

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4. How can you tell that lynxes feed almost exclusively on snowshoe hares? \_\_\_\_\_

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5. What factors other than its interaction with the lynx might affect the population of snowshoe hares? \_\_\_\_\_

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6. Suppose that fur coats made out of lynx became extremely popular.

a. How would this initially affect the appearance of the graph? \_\_\_\_\_

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b. How would this affect the actual populations of lynx? \_\_\_\_\_

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Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

c. What long-term effects might this have on the population of snowshoe hares? \_\_\_\_\_

d. How would the predicted change in the snowshoe hare population affect the Canadian ecosystem? \_\_\_\_\_